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ABSTRACT

A three-phase developmental model of sex-role stereotyping that viewed the acquisition of sex-role stereotypes as part of the broader process of the development of social understanding was proposed. Phases in the model included: (1) beginning awareness of sex-role differentiation; (2) rigid sex-role stereotyping; and (3) flexible sex-role stereotyping. The validity of the hypothesized developmental sequence was tested in a longitudinal study with 82 children in 6 kindergartens in the area of Frankfurt, West Germany, who were investigated in 1-year intervals from 4-10 years of age. Subjects assigned 38 sex-typed traits and activities of children's and adults' roles to 1 of 5 categories ranging from extremely feminine to extremely masculine. Group data and intraindividual patterns of answers supported the postulated developmental model. Rigid stereotyping reached its maximum at 6 years of age, while flexible stereotyping became dominant at about 9 years. Rigidity and flexibility of answers varied with item content. Items related to adults' role, masculine characteristics, and activities were seen as more rigid and less flexible than those concerning children's role, feminine characteristics, and personality traits. Boys and girls did not differ in rigidity-flexibility scores. Findings substantiate the joint impact of the perceiver's developmental status and perceived characteristics of the social environment on children's development of sex-role stereotypes. (RH)

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ARBEITEN AUS DEM FORSCHUNGSPROJEKT

LÄNGSSCHNITTLICHE ANALYSE VON ENTWICKLUNGSMERKMALEN DER GESCHLECHTSTYPISIERUNG IM KINDESALTER

Nr. 5 1989/1

Beginning Awareness - Rigidity - Flexibility: A Longitudinal Analysis of Sex-Role Stereotyping in 4- to 10 Year-Old Children

Hanns Martin Trautner, Nicole Helbing, Winfried B. Sahm & Arnold Lohaus

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The paper was presented at the Biennial Meeting of the Society for Research in Child Development, Kansas City, April 1989.

The research was supported by grants from the Volkswagen Foundation and from the German Research Foundation (DFG - grant Tr 142/3) to the first author.

SUMMARY

Viewing the acquisition of sex-role stereotypes as part of the broader process of the development of social understanding, a three-phase developmental model of sex-role stereotyping was proposed: (1) Beginning awareness of sex-role differentiation; (2) Rigid sex-role stereotyping; (3) Flexible sex-role stereotyping. The validity of the hypothesized developmental sequence was tested in a longitudinal study with 82 children who were investigated in one-yearly intervals from age four to age ten. Subjects had to assign 38 sex-typed traits and activities of children's and adults' roles to one of five categories ranging from extremely feminine to extremely masculine. Group data and intraindividual patterns of answers supported the postulated developmental model. Rigid stereotyping reached its maximum at age 6, flexible stereotyping became dominant at about age 9. Rigidity and flexibility of answers varied with item content. Items related to adults' role, masculine characteristics, and activities were seen more rigid and less flexible than children's role, feminine characteristics, and personality traits. Boys and girls did not differ in rigidity-flexibility scores. Our findings give evidence to the joint impact of the perceiver's developmental status and the perceived characteristics of the social environment on children's development of sex-role stereotypes.

Das Projekt wird von der DFG seit 1985 durch eine Sachbeihilfe (Tr 142/3-1) gefördert. Es führt die längsschnittliche Analyse der Entwicklung zweier Kohorten fort, die im Rahmen des von der VW-Stiftung von 1981 bis 1984 geförderten Forschungsprojektes 'Entwicklung und Zusammenhangsmuster von Merkmalen der Geschlechtstypisierung im Kindesalter' bereits wiederholt untersucht worden waren.

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PROBLEM

Introduction

Until recently, research on the development of sex-role stereotypes has focused on the quantitative increase in the knowledge of the culturally defined sex-role characteristics (Williams & Best, 1982). Viewing the acquisition of sex-role stereotypes as part of the broader process of the development of social understanding, qualitative changes have also to be considered (Martin & Halverson, 1987; Trautner, Sahm & Stevermann, 1983). In this context, the progress from absolute, rigid conceptions to more flexible conceptions seems to play a prominent role (Carter & Patterson, 1982; Carter & Taylor, in press; Trautner et al., 1983). Based on the results of previous research on age differences in sex-role stereotypes, and on the development of social understanding, a three-phase developmental model of sex-role stereotyping is proposed:

(1) Uncertainty about the characteristics that
are culturally associated with gender
"Who's tough?"

Unawareness of sex-stereotypes

(2) Linking sex-role characteristics exclusively
to males or females
"Men are tough."

Rigid sex-stereotypes

(3) Conceptualizing sex-role characteristics as
partially common to both sex-groups
"Well, not all men are tough, and
there are tough women, too."

Flexible sex-stereotypes

Aims

The main purpose of the present study was to test the validity of the proposed developmental model by analyzing longitudinal data of 82 children comprising the age range from 4 to 10 years.

Further, we were interested if there were differences in the development of sex-role stereotyping depending on item content (adults' vs. children's role, feminine vs. masculine characteristics, activities vs. personality traits) and sex of subjects.

METHOD

Subjects

39 boys and 43 girls participated in the study. The study was part of an extensive longitudinal research project on the development of sex-typing in German children (Trautner, Helbing, Sahm & Degenhardt, 1989). At the first time of measurement Ss were between 4-6 and 5-5 years old. They were tested in one-yearly intervals until age 9-6 to 10-5. 10 children missed one date of measurement, 8 children two dates.

Ss were drawn from six kindergartens in the area of Frankfurt (West-Germany). During school years they were distributed over eleven elementary schools in the same area. The social stratification of the sample can be regarded as representative for German kindergarten- and elementary school children.

Tasks

To assess sex-role stereotypes two lists of short statements on sex-typed activities and personality traits of children's role (20 items) and of adults' role (18 items) were used. Half of them were feminine, half were masculine. The format of the items and the response scale are shown in Fig. 1.

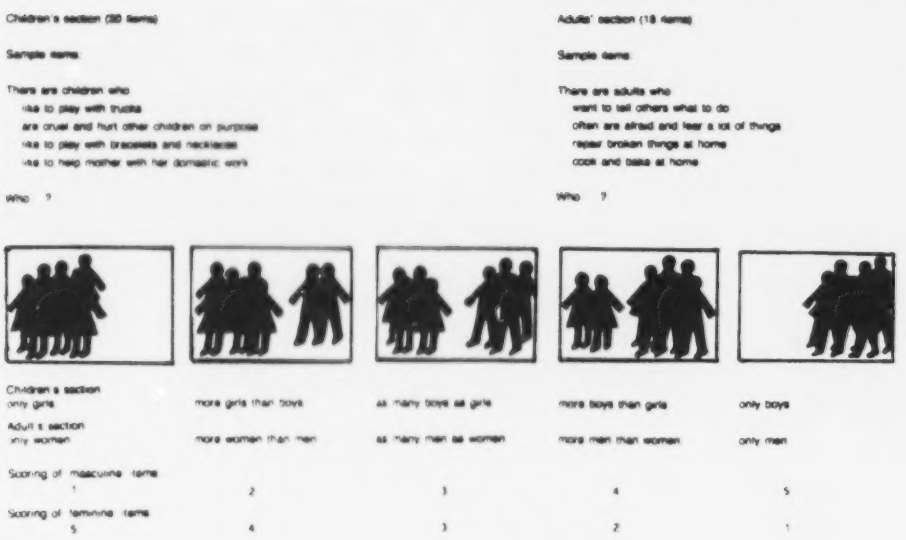


Figure 1: Format and response scale of stereotype items

Procedure

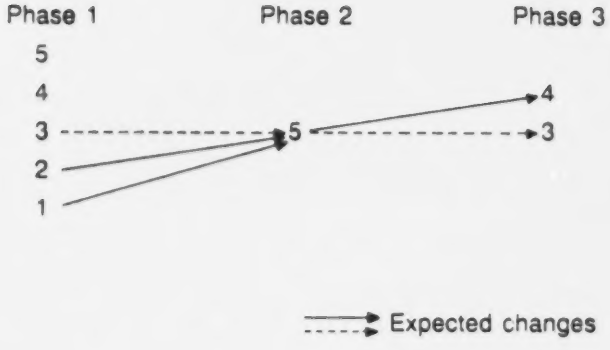
Each child was tested individually by a trained experimenter of his or her own sex. A second experimenter of the opposite sex recorded the subject's reactions.

Items were read successively to the children by the first experimenter. The children were instructed to answer each statement by sorting a card into that box (out of five) which fitted best.

Scoring

Type of answer	Meaning of answer
1-2-(3)	Unawareness of stereotypes
(3)-4	Flexible stereotyping
5	Rigid stereotyping

Developmental model



RESULTS

(1) The observed data patterns clearly supported the hypothesized three-phase model of sex-role stereotyping (see Fig. 2). A considerable amount of sex-role knowledge was found already by age 5, indicating that phase 1 of the assumed developmental sequence (unawareness of sex-role stereotypes) has to be located before the initial age of our study. The maximum of rigid stereotyping (phase 2) was reached at age 6, while flexible stereotypes (phase 3) became dominant not before an age of 8 or 9 years.

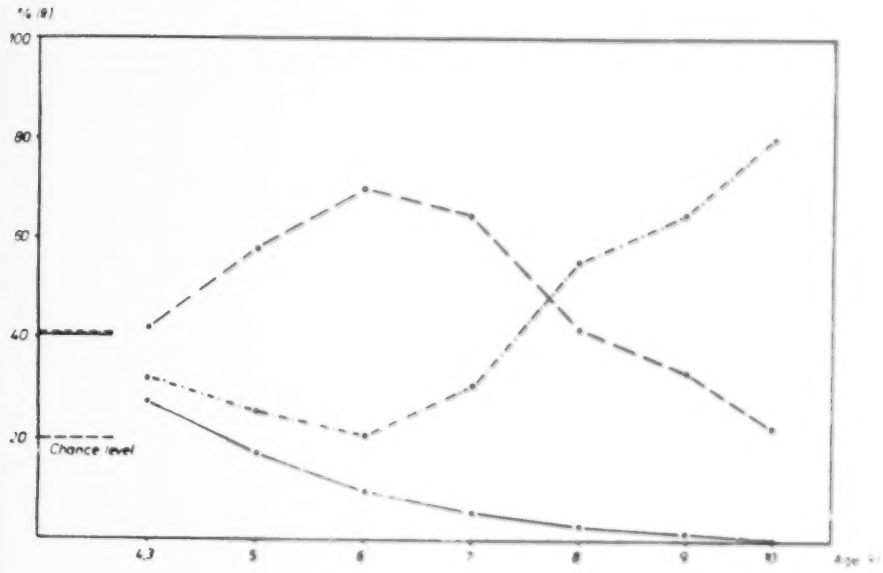


Figure 2: Mean percentages of counterstereotypical (—), rigid (- - -), and flexible (-·-) answers for longitudinal sample as a function of age

(2) Intraindividual data analyses examining the pattern of answers over successive ages revealed that 80 of 82 subjects passed through the assumed developmental sequence in an orderly manner (model fit > 75%).

(3) Classifying children by the method of Cluster analysis (Hill Climbing Method) according to their developmental changes in flexibility scores resulted in three

clusters that mainly differed in the age of greatest increase in stereotype flexibility, and, respectively, the age of maximum rigidity (see Fig. 3).

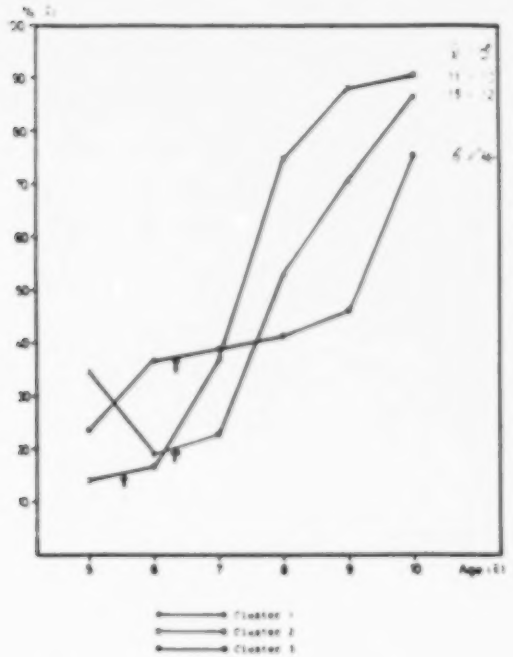
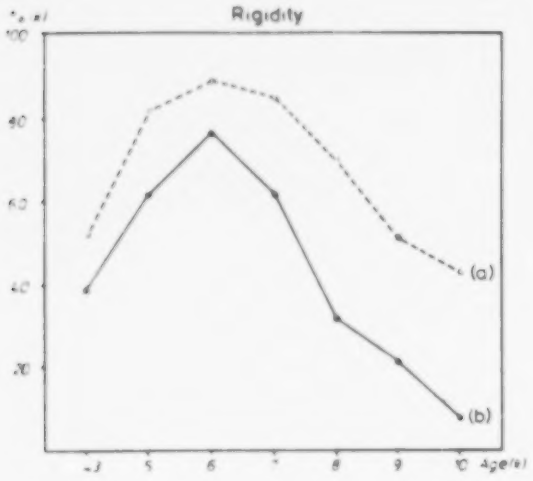


Figure 3: Grouping of subjects (Cluster analysis) according to their age changes in sterotype-flexibility (STF). Age of maximum rigidity marked in curves (↑)

(4) Rigidity and flexibility scores varied significantly depending on item content, with rigidity higher, and flexibility lower, respectively, for adults' role compared to children's role ($p < .001$), masculine characteristics compared to feminine characteristics ($p < .001$), and activities compared to personality traits ($p < .001$). Boys and girls did not differ in their answers.

(5) Overall, a considerable amount of variation could be observed across different items. An illustrative example of this variation is given in Fig. 4, showing one rather strongly stereotyped item ("Playing with Dolls") and one weakly stereotyped item ("Playing Cowboys and Indians").



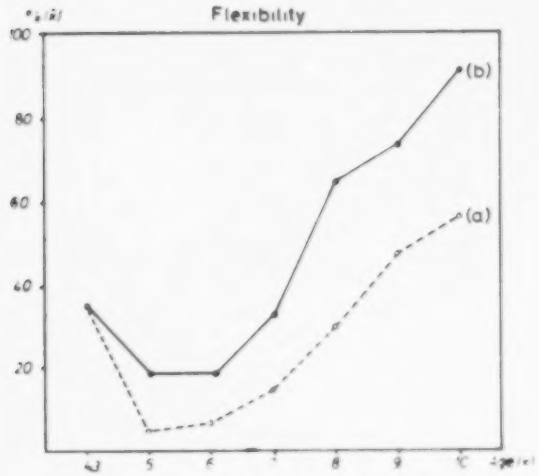


Figure 4: Age changes in rigidity and in flexibility of stereotyping for a) "Playing with Dolls" (- - -) and b) "Playing Cowboys and Indians" (—)

CONCLUSIONS

(1) The increase in the knowledge of sex-role characteristics is only an early step in the development of sex-role stereotypes. Results indicate that children while learning the male-female distinctions adopt a highly rigid conception of sex-role differentiation. Once sex-role knowledge is established, the rigid adherence to sex-role stereotypes declines in favor of more flexible sex-role concepts.

(2) The early acquisition of sex-role knowledge and the succession of, first, highly rigid and, later, more flexible sex-role stereotypes appear to be universal developmental phenomena, presumably cognitively determined (Martin & Halverson, 1987; Trautner et al., 1983, 1989), and showing interindividual differences only in their age of occurence. Quite contrary, how flexible individual sex-role concepts will become, seems to be less influenced by cognitive factors than by characteristics of the social environment, i.e., the extent of the perceived sex-role discrimination and its social endorsement.

(3) The observed differences in rigidity-flexibility scores depending on item content reflect mainly the different amount of sex-role discrimination of the concerning characteristics in the social environment (e.g.: stronger stereotyping of male role vs. female role) and/or differences in the "visibility" of sex-role characteristics (e.g.: greater visibility of play activities vs. personality traits).

(4) Our findings give evidence to the joint impact of the perceiver's developmental status and the perceived characteristics of the social environment on children's development of sex-role stereotypes.

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